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COMPARATIVE FECUNDITY OF WOMEN OF NATIVE
AND FOREIGN PARENTAGE IN THE UNITED
STATES.BY JOSEPH A. HILL, *United States Bureau of the Census.*

In the last part of the 28th volume of the forty-two volume report of the recent Immigration Commission is a statistical monograph of less than one hundred pages on the Fecundity of Immigrant Women.* In preparing a summary of this monograph for the QUARTERLY PUBLICATIONS OF THE AMERICAN STATISTICAL ASSOCIATION the writer has acted on the belief that the subject is of sufficient interest and the data of sufficient value to justify their presentation to a larger public than is likely to come upon them in the voluminous and to most people, more or less inaccessible reports of the Commission.

The monograph is more comprehensive in scope than the title suggests, for it presents data not only for foreign-born or immigrant women but for native women as well. Moreover, it distinguishes native women whose parents were foreign born from those whose parents were native. The comparisons between these three classes, indeed, constitute the most interesting feature of the report.

For the basic data used in the preparation of this report the Immigration Commission was indebted to the United States Census. Few persons perhaps are aware that at each of the three last censuses—those of 1890, 1900, and 1910—the census enumerators ascertained and recorded on the population schedules the number of children that had been borne by every woman enumerated in the United States. Of the valuable data thus obtained all that has ever been published as yet is contained in this report of the Immigration Commission. The failure of the Census Bureau to make any use of the returns

* The Immigration Commission was created by an act of Congress passed February 20, 1907. It comprised three senators, three members of the House of Representatives, and three other persons appointed by the President, and was organized for the purpose of making a "full inquiry, examination, and investigation . . . into the subject of immigration." The Commission completed its labors and published the report embracing its conclusions in December, 1910.

The monograph on the "Fecundity of Immigrant Women" was prepared for the Commission under the direction of Joseph A. Hill, one of the chief statisticians in the Bureau of the Census, assisted by Julius H. Parmelee.

of 1890 and 1900 is explained on the ground that the magnitude of the task of tabulating the data led to the postponement of the undertaking pending the completion of other lines of census work which were considered to have precedence both on account of their primary importance and because they had regularly formed a part of prior census reports. It is to be hoped and, in fact, is probable that the returns obtained at the census of 1910 will not be similarly neglected, but as yet no steps have been taken towards their tabulation.

The Immigration Commission, when its attention was called to the existence of this material, recognized its significance and obtained permission to make a tabulation of the data contained in the schedules of the census of 1900, the census of 1910 not having been taken at that time. With the small force of clerks that could be detailed to this branch of the Commission's work it was impossible, however, to do more than compile and present the facts for a few more or less typical communities in the vast population of the United States. It was not practical to cover even a single great metropolis like New York or Chicago. The areas finally selected for this investigation included the state of Rhode Island, the city of Cleveland and 48 mainly rural counties in the state of Ohio, and the city of Minneapolis and 21 mainly rural counties in the state of Minnesota. The state of Rhode Island was selected as representing conditions in the East where manufacturing is the principal industry and the population is mainly urban with a large foreign element. About four fifths of the population of that state live in cities of over 10,000 inhabitants and about one third are of foreign birth. Cleveland and Minneapolis were selected as typical of conditions in cities of the Middle West, while the selected counties in Ohio and Minnesota were taken as representing conditions in farming communities in that section of the United States. The selection, moreover, was made with a view to securing an adequate representation of the principal foreign races or nationalities in the immigrant population of the United States. Rhode Island furnished a fairly adequate representation of the Italian and French Canadian immigrants; Cleveland of the immigration from Austria, Hungary, and Russia; and

Minneapolis of that from Scandinavian countries. The rural counties of Ohio gave a fair representation of the Finns. Most of the other principal classes of immigrants were represented in considerable numbers in more than one of these communities.

It is evident that in any study of fecundity the data in regard to the number of children borne should be correlated with the age of the mother and the number of years she has been married. In fact this information is almost essential. The knowledge that one married woman has borne three children and another four justifies no inference regarding the relative fecundity of these two women until we know how long each has been married and her age. Age is recorded by the census for every person enumerated and the duration of the marriage is also recorded for all persons living in the married state at the time the census was taken. In case of a widow, however, the latter information is lacking, the duration of her marriage not being stated in the census. In view of this fact it was thought best to confine the tabulation to the data recorded for married women. The aim of the Commission was to secure the most significant results with the minimum amount of labor, and it was believed the best results could be obtained by further confining the tabulation to women under 45 years of age, since their married life would for the most part be within the child-bearing period. In fact most of the tables presented in the report are restricted to women under 45 years of age who had been married not less than ten nor more than twenty years. The report states that "the lower limit of 10 years was adopted with a view to limiting the comparison to women who had been married long enough to have borne at least three or four children, and also with a view to excluding women who married after the age of 35, and for whom therefore a prior marriage was rather probable. The upper limit of 20 years was selected somewhat arbitrarily, but with the idea of not having the limits any further apart than was necessary to include enough women to make the figures significant. In more general terms the women considered may be defined as married women of child-bearing age who are in the second decade of their married life."

The possibility of a prior marriage here referred to was a disturbing factor in the comparison of the number of children with the number of years married, for the reason that the number of children reported by the census included all children borne by the woman up to the time the census was taken, while the number of years married related only to the existing marriage. All cases in which the number of children was too large to have been borne during the existing marriage were eliminated. But it is admitted that there must have been a considerable number of cases of prior marriages which were not revealed by any disproportion between the number of the children and the duration of the present marriage or by any other evidence, and that the inclusion of these cases introduces a small element of error, the effect of which is to exaggerate slightly the fecundity of present marriages by crediting them with the children born of prior marriages. The writer introduces statistics to show that the effect of the error is practically inappreciable, especially in view of the probability that it affects all the different classes to about the same degree. It appears that in the state of Massachusetts, of the women who marry under the age of 25 only 1.1 per cent. have been married before, for those marrying under the age of 30, the percentage of prior marriages is 2.9, and for those marrying under the age of 35 it is 4.6.

The total number of women for whom data were tabulated was 185,788; of these, 78,432 had been married from 10 to 20 years, this being the class for which as previously stated the data are presented in greatest detail.

The women were classified according to the country in which both parents were born—as being of “native parentage” if both parents were born in the United States, of “foreign parentage” if both parents were born in foreign countries, of “Italian parentage” or “nationality” if both parents were born in Italy. Each foreign parentage class was furthermore subdivided into two classes so as to separate the immigrant women, who were themselves born abroad, from the women born in the United States of immigrant parents, the former class being designated as the “first generation,” the latter as the “second generation.” Women whose parents

were born in different countries, for instance, father in Italy and mother in Austria, or father in Germany and mother in the United States, were omitted from the tabulation because it was found that the number of cases under each of the many combinations of mixed parentage would be too small to serve as a basis for any conclusions as to the effect upon fecundity of a mixing of races.

Of course it must be recognized that a classification based on country of origin is not equivalent to a classification by race for the reason that many foreign countries include a diversity of races. Austria, for instance, includes a number of diverse races. But these could not be distinguished on the basis of the returns of the census of 1900. We know that comparatively few of the natives of Russia who migrate to the United States are Russians in the ethnical sense of the word. The great majority of them are racially classed as Hebrews, Poles, and Lithuanians. In other cases, however, the country of birth practically defines the race. This is true of such countries as Ireland, Scotland, France, Denmark, Norway, and Sweden, the inhabitants of each of these countries being mainly homogeneous as regards race. From the classification by country of birth the census of 1900, however, made two rather important deviations: It separated the Poles—defined as persons who speak Polish and were born in what was formerly Poland—from the other natives of Austria, Germany, and Russia; and it distinguished between the Canadian French and the Canadian English in case of persons born in Canada.

In the tables published in this report the fecundity of the several nationalities or parentage classes of married women is indicated by four different *criteria*, as follows:

- (1) Number and percentage of women bearing no children.
- (2) Average number of children per woman.
- (3) Number and percentage of women bearing not more than two children; from three to five children, inclusive; and more than five children.
- (4) Average number of years married per child borne.

The facts as to the relative number of married women who have had no children are shown for the main classes covered by this investigation in the following tabular statement:

Class.	Women under 45 Years of Age Married 10 to 20 Years.		
	Total Number Tabulated.	Bearing no Children.	
		Number.	Per Cent. Total.
All classes.....	78,432	5,775	7.4
White—native parentage.....	15,953	2,097	13.1
White—foreign parentage.....	61,816	3,541	5.7
First generation (born abroad).....	37,788	2,018	5.3
Second generation (born in United States).....	24,028	1,523	6.3
Negro.....	663	136	20.5

The contrasts brought out by the above table are very striking. Of the women of native parentage included in this tabulation, 13.1 per cent. had had no children; of the women of foreign parentage, only 5.7 per cent. In other words, approximately one woman in eight among women of native stock was childless as compared with about one in twenty among women of foreign stock. There is, moreover, an appreciable difference between the first generation of the foreign stock, or the women who were immigrants, and the second generation, or the woman whose parents were immigrants. Of the former 5.3 per cent. had had no children; of the latter, 6.3 per cent. Thus the immediate effect of an American environment would appear to be a diminution in fecundity, and this inference is confirmed by the other data to be presented later.

Very remarkable and perhaps rather unexpected were the results brought out for Negro women. The Commission did not deliberately undertake to secure statistics for this class. The Negro women covered by the tabulation were, so to speak, picked up incidentally, comprising those who happened to be in communities which had been selected with a view to ascertaining the facts in regard to immigrants in comparison with the native white stock. But the results for the Negro women are none the less significant, showing as they do a degree of barrenness far exceeding that for the white women of American stock. Of the married Negro women 20.5 per cent., or one in five, was childless. The number tabulated

was not large, but the results are believed to be typical, especially as the percentage was about the same in the different sections of the country included in the investigation, omitting the rural portions of Ohio and Minnesota, where the numbers were too small to justify showing any percentage.

Area Covered.	Negro Women under 45 Years of Age Married 10 to 20 Years.		
	Total Number Tabulated.	Bearing no Children.	
		Number.	Per Cent. of Total.
Total area tabulated.	663	136	20.5
Rhode Island.	360	81	22.5
Cities of over 10,000 inhabitants.	299	69	23.1
Remainder of the state.	61	12	19.7
Cleveland.	235	46	19.6
Minneapolis.	47	9	19.6
Rural counties of Ohio.	19	..	*
Rural counties of Minnesota.	2	1	*

* Percentage not shown, because of small numbers involved.

Of course the results here obtained are indicative only of conditions among Negro women in the North and mostly in northern cities. In the South conditions may be and probably are very different. The statistics presented suggest, moreover, that they may be very different in the rural West, although the numbers given are believed to be too small to justify giving a percentage.

Anticipating a little the data to be presented later, it may be mentioned in this connection that while relatively more Negro women than white women of native parentage have no children, the average number of children borne by Negro women exceeds the average for white women of native stock. This indicates, of course, that those Negro women who have children have a larger number on the average than the white women who have children. The average number of children per woman in the class of married women under 45 years of age married 10 to 20 years was 3.1 for Negro women, as compared with 2.7 for white women of native parentage. Excluding the women who were childless, the

average becomes 3.9 for the Negro women, as compared with 3.1 for the white. Generalizing, it might be said that the Negro woman in the North either has no children at all or else has a good many children.

As previously explained, the women of foreign parentage were classified according to country of birth of parents, and the results, as might be anticipated, reveal a wide range of variation in different nationalities or races. In the following table the several foreign classes or nationalities are arranged in order of decreasing percentage having no children.

Class.	Women under 45 Years of Age Married 10 to 20 Years.		
	Total Number Tabulated.	Bearing no Children.	
		Number.	Per Cent.
All classes.....	78,432	5,775	7.4
White—native parentage.....	15,953	2,097	13.1
White—foreign parentage.....	61,816	3,541	5.7
Scotch.....	1,209	115	9.5
English.....	5,352	480	9.0
French.....	329	29	8.8
Canadian English.....	1,349	118	8.7
Irish.....	9,975	779	7.8
Hungarian.....	1,011	73	7.2
Swiss.....	858	50	5.8
Welsh.....	764	40	5.2
Austrian.....	774	40	5.2
Canadian French.....	2,875	143	5.0
Italian.....	1,167	57	4.9
Finnish.....	312	15	4.8
Swedish.....	3,373	159	4.7
German.....	23,003	1,082	4.7
Norwegian.....	3,185	140	4.4
Danish.....	618	24	4.0
Russian.....	656	17	2.6
Polish.....	1,476	37	2.5
Bohemian.....	2,398	60	2.5
Other foreign parentage.....	1,132	82	7.2
Negro.....	663	136	20.5

Of the various foreign nationalities, the Scotch have the largest percentage of women who have had no children, the English ranking next in this respect, then the French and after them the Canadian English, or more strictly speaking the Canadians exclusive of the Canadian French. But it will be noticed that in no foreign nationality is the percentage of childless women as large as it is among the native white

women of native stock. The Poles, the Bohemians, and the Russians (consisting largely of Russian Jews) have the smallest percentages of childless women.

The next table gives the average number of children born per married woman, the data as before relating to women under 45 years of age married 10 to 20 years.

Class.	Women under 45 Years of Age Married 10 to 20 Years.		
	Total Number Tabulated.	Total Number of Children.	Average per Married Woman.
All classes	78,432	317,747	4.1
White—native parentage	15,953	42,933	2.7
White—foreign parentage	61,816	272,763	4.4
English	5,352	18,415	3.4
Canadian English	1,349	4,668	3.5
Scotch	1,209	4,321	3.6
Welsh	764	2,879	3.8
Swedish	3,373	14,199	4.2
French	329	1,413	4.3
German	23,003	99,412	4.3
Irish	9,975	44,308	4.4
Swiss	858	3,764	4.4
Hungarian	1,011	4,582	4.5
Austrian	774	3,589	4.6
Norwegian	3,185	15,106	4.7
Danish	618	2,983	4.8
Italian	1,167	5,660	4.9
Bohemian	2,398	12,102	5.0
Finnish	312	1,657	5.3
Russian	656	3,574	5.4
Canadian French	2,875	16,225	5.6
Polish	1,476	9,080	6.2
Other foreign parentage	1,132	4,826	4.3
Negro	663	2,051	3.1

For the native whites, of native parentage the average number of children per married woman was only 2.7; for the whites of foreign parentage it was 4.4. According to these averages ten women of native American stock had in the aggregate given birth to 27 children, while ten women of foreign stock had given birth to 44.

Of the various foreign nationalities distinguished in the table the Poles were the most prolific, the women of Polish parentage who were in the second decade of their married life having had an average of 6.2 children each. The Canadian French rank next, with an average of 5.6, and then the Russians

and Finns, with an average of 5.4 and 5.3, respectively. At the other extreme are the Scotch, Canadian English, and English—none of them, however, with an average as low as that for the native American stock. Of course these figures should not be understood as representing or indicating the average number of children to which the women who marry give birth in the course of their married lives. That average might be either larger or smaller than the average here given because, on the one hand, many of the women here considered will bear more children before their married lives are terminated and, on the other hand, many women who marry never reach the second decade of married life and therefore bear fewer children on the average than the women here considered.

In the following table the women of the various nationalities who have borne children are classified with respect to the number of children, into three classes: (1) Those having one or two children, (2) those having from 3 to 5 children, and (3) those having had more than 5 children. The foreign parentage classes have been arranged in the ascending order with respect to the percentage having more than 5 children, that percentage indicating the relative prevalence of large families. The results exhibit a wide range of variation. Of the Polish women enumerated in the second decade of married life, 60.9 per cent. had borne more than 5 children; of the English and English Canadians, only 18.5 per cent. The latter is the lowest percentage for any of the foreign races as distinguished in the table. But much lower than this is the percentage for the native white women of native parentage, of whom only 9.9 per cent. had borne more than 5 children.

Women under 45 Years of Age Married 10 to 20 Years.									
Class.	Total Number Tabulated.	Number Bearing			Per Cent. Bearing				
		No Children.	1 or 2 Children.	3, 4 or 5 Children.	More than 5 Children.	No Children.	1 or 2 Children.	3, 4 or 5 Children.	More than 5 Children.
All classes	78,432	5,775	18,197	32,496	21,964	7.4	23.2	41.4	28.0
White—native parentage.....	15,953	3,097	6,348	5,926	1,582	13.1	39.8	37.2	9.9
White—foreign parentage.....	61,816	3,541	11,646	26,386	20,243	5.7	18.9	42.7	32.7
Canadian English.....	1,349	118	401	580	280	8.7	29.8	43.0	18.5
English.....	5,352	480	1,636	2,247	989	9.0	30.5	42.0	18.5
Scottish.....	1,209	115	322	528	244	9.5	26.6	43.7	20.2
Welsh.....	1,764	40	187	380	157	5.2	24.5	49.7	20.6
Swedish.....	3,373	159	630	1,643	941	4.7	18.7	48.7	27.9
German.....	23,003	1,082	4,672	10,269	6,990	4.7	20.3	44.6	30.4
Swiss.....	858	50	151	386	271	5.8	17.6	45.0	31.6
French.....	329	29	58	135	107	8.8	17.7	41.0	32.5
Hungarian.....	1,011	73	136	449	353	7.2	13.5	44.4	34.9
Irish.....	9,975	779	1,698	4,008	3,490	7.8	17.0	40.2	35.0
Austrian.....	774	40	118	328	288	5.2	15.2	42.4	37.2
Italian.....	1,167	57	137	525	438	4.9	11.7	45.9	37.5
Norwegian.....	3,185	140	470	1,358	1,217	4.4	14.8	42.6	38.2
Danish.....	618	25	91	257	245	4.0	14.8	41.6	39.6
Bohemian.....	2,398	60	246	1,091	1,001	2.5	10.3	45.5	41.7
Finnish.....	312	15	30	119	148	4.8	7.3	38.2	47.4
Russian.....	656	17	48	260	331	2.6	7.3	39.6	50.5
Canadian French.....	2,875	143	327	882	1,523	5.0	11.3	39.7	53.0
Polish.....	1,476	37	75	465	899	2.5	5.1	31.5	60.9
Other foreign parentage.....	1,132	82	213	476	361	7.2	18.9	42.0	31.9
Negro.....	663	137	203	184	139	20.7	30.6	27.7	21.0

In the table below the several classes are ranked first with respect to the percentage having children and then with respect to the percentage having more than five children. It might be said that in the one case the various classes are ranked with respect to their tendency to have any children and in the other with respect to their tendency to have many children or large families. The two rankings show some striking differences. The Germans, for instance, have a rather high rank (6th) as regards their tendency to have some children but a rather low rank (14th) as regards their tendency to have many children. The same thing may be said of the Swedes. The Irish, on the other hand, have a rather low rank (15th) as regards the tendency to have some children but a much higher rank (10th) as regards their tendency to have large families. Of the Germans 95.3 per cent. had had children and 30.4 per cent. had had more than 5 children; of the Irish 92.2 per cent. had had children and, at the same time, 35 per cent. had had more than 5 children. As regards the percentage having children the Canadian French and Italians are in practically the same class, the percentages being

Rank.	Ranked with respect to—			
	Tendency to Have Any Children.		Tendency to Have Many Children.	
	Class.	Per Cent. Having no Children.	Class.	Per Cent. Having More than 5 Children.
1	Bohemian.....	97.5	Polish.....	60.9
2	Polish.....	97.5	Canadian French.....	53.0
3	Russian.....	97.4	Russian.....	50.5
4	Danish.....	96.0	Finnish.....	47.4
5	Norwegian.....	95.6	Bohemian.....	41.7
6	German.....	95.3	Danish.....	39.6
7	Swedish.....	95.3	Norwegian.....	38.2
8	Finnish.....	95.2	Italian.....	37.5
9	Italian.....	95.1	Austrian.....	37.2
10	Canadian French.....	95.0	Irish.....	35.0
11	Austrian.....	94.8	Hungarian.....	34.9
12	Welsh.....	94.8	French.....	32.5
13	Swiss.....	94.2	Swiss.....	31.6
14	Hungarian.....	92.8	German.....	30.4
15	Irish.....	92.2	Swedish.....	27.9
16	Canadian English.....	91.3	Negro.....	21.0
17	French.....	91.2	Welsh.....	20.6
18	English.....	91.0	Scotch.....	20.2
19	Scotch.....	90.5	Canadian English.....	18.5
20	American (white).....	86.9	English.....	18.5
21	Negro.....	79.5	American (white).....	9.9

95.0 and 95.1, respectively; but the percentage having more than 5 children is 53.0 for the Canadian French, as compared with 37.5 for the Italians.

Still another index of fecundity may be derived from these data by ascertaining the ratio of the number of years married to the number of children borne, or the average number of years married per birth. This figure is obtained by computing the aggregate number of years married in the case of each group of women covered by the tabulation and dividing that aggregate by the total number of children. The same figure would be obtained by dividing the average number of years married by the average number of children if these averages were exact. But as here given they are approximate, being carried out to only one decimal place; therefore they do not always give the same quotient as is obtained by using the totals as the basis of the computation.

Adding one married life to another, the 78,432 women included in this tabulation represented in the aggregate 1,108,721 years of married life—possibly an appalling figure, but one which of course has no value or significance except as a step in the computation. It represents an average married life of 14.1 years per woman. As the aggregate number of children to whom these women had given birth was 317,747, the average number of children per woman was 4.1 and the number of years of married life per child, 3.5. The latter figure may be defined as the child-bearing rate that had been maintained by the women included in this tabulation, consisting of women under 45 married from 10 to 20 years. The table which follows gives this rate for each of the several parentage classes distinguished in the tabulation. The white women of native parentage had had one child every 5.3 years; the white women of foreign parentage, one every 3.2 years. For the several nationalities of foreign origin the rate ranged from 4.2 for the women of English parentage to 2.3 for those of Polish parentage. For the latter and also for the women of Canadian French, Finnish, and Russian parentage the average interval between births was less than half what it was for the women of native American parentage.

Class.	Women under 45 Years of Age Married 10 to 20 Years.			
	Total Number Tabulated.	Average Num- ber of Years Married.	Average Num- ber of Children Borne.	Average Num- ber of Years Married per Child Borne.
All classes	78,432	14.1	4.1	3.5
White—native parentage	15,953	14.2	2.7	5.3
White—foreign parentage	61,816	14.1	4.4	3.2
English	5,352	14.4	3.4	4.2
Canadian English	1,349	14.0	3.5	4.0
Scotch	1,209	14.2	3.6	4.0
Welsh	764	14.0	3.8	3.7
French	329	14.3	4.3	3.3
German	23,003	14.2	4.3	3.3
Irish	9,975	14.1	4.4	3.2
Swedish	3,373	13.6	4.2	3.2
Swiss	858	14.2	4.4	3.2
Hungarian	1,011	13.6	4.5	3.0
Austrian	774	13.5	4.6	2.9
Danish	618	14.1	4.8	2.9
Italian	1,167	13.9	4.9	2.9
Norwegian	3,185	13.9	4.7	2.9
Bohemian	2,398	14.0	5.0	2.8
Canadian French	2,875	14.6	5.6	2.6
Finnish	312	13.8	5.3	2.6
Russian	656	14.1	5.4	2.6
Polish	1,476	14.0	6.2	2.3
Other foreign parentage	1,132	14.2	4.3	3.3
Negro	663	13.9	3.1	4.5

The figures which have been presented afford no exact measure of the difference between the several classes as regards either birth rate or natural increase. Birth rate involves several factors which are here left out of account. It is affected not alone by the difference in the rate at which children are born during a given number of years of married life, but also by the age at which women marry and by the varying length of the period during which they continue to bear children. It is probable that some of the foreign parentage classes marry younger than the women of American parentage, that they begin having children earlier in life, and continue to have them later in life. To that extent the figures here given understate rather than exaggerate the contrast in the fecundity of the native as compared with the foreign stock. But on the other hand it is equally probable, in fact, practically certain, that the death rate and particularly the infant mortality is greater for the foreign than for the native stock, and that the ratio of children "raised" to children born is accordingly

less for the former than for the latter. To that extent the figures here presented exaggerate rather than understate the differences between the several classes as regards the natural rates of increase.

Mention has been made of the fact that the tabulation as applied to the women of foreign parentage distinguished between women who were themselves foreign born and native women whose parents were foreign born, the two subclasses being designated as the first and second generations, respectively. The following table presents separate data for each of these subclasses under each foreign parentage class. In some cases the representatives of the second generation were very few, because the immigration is of so recent origin that the second generation has not had time to grow up. In case of the women of Italian parentage, for instance, the tabulation included only 13 women of the second generation as compared with 1,154 of the first. Of Finns there were none in the second generation. In case of the Germans and the Irish, on the other hand, who represent an older immigration, the women of the second generation outnumbered those of the first. Where the number is very small, as it is in the case of second generation of Italians, the results of the tabulation can hardly be accepted as typical, and for that reason no rates have been shown. It is a question whether in two or three cases where rates are given the numbers are not still so small as to make the results of somewhat doubtful value; but in general the representation is sufficient to afford a safe basis of comparison.

Whether the test is the average number of children, or the average number of years married per child borne, or the percentage of women bearing more than 5 children, the comparison for every foreign parentage class almost without exception indicates a lower fecundity for the second generation than for the first. In this respect at least the second generation manifests varying degrees of assimilation to American standards. The difference between the two generations is much more marked in some parentage classes than in others. It is more marked for the Germans, the Scotch, and the English than it is for the Irish, the Norwegians, or the Canadian English. As a rule the women of the second generation had been

married a small number of years on the average, a circumstance for which, of course, allowance must be made in a comparison of the average number of children, or of the percentage of women having more than 5 children. This circumstance, however, would have little effect on the comparison of the child-bearing rate as measured by the number of years married per child borne. Among the classes of foreign extraction the one which had the lowest fecundity rate according to this test was the second generation of English—one child every five years. This approaches the American standard of one child every 5.3 years. Next to the second generation of English comes the second generation of Scotch—one child every 4.7 years. The highest degree of prolificness is that indicated for the first generation of Poles—one child every 2.3 years. The first generation of Canadian French had had one child every 2.5 years; the Italian first generation and also the Norwegians of both generations had borne children at the rate of one every 2.9 years.

It may be noted, however, as a fact of significance that the proportion of women having no children is not invariably larger for the second generation than for the first. On the contrary, in the case of the Canadian English, the Canadian French, the Danes, the Norwegians, the Poles, the Swiss, and the Welsh the percentage of childless women was smaller in the second generation than in the first. That is to say, relatively more women of the second generation had had children, although they had had relatively fewer children. This suggests that the tendency of the second generation as compared with the first is not so much in the direction of no families as it is in the direction of small families.

Nationality as Determined by Nativity of Parents.	Women under 45 Years of Age Married 10 to 20 Years.					
	Total Number Tabulated.	Per Cent. Bearing no Chil- dren.	Per Cent. Bearing More than 5 Children.	Average Number of Years Married.	Average Number of Children.	Average Number, Years Married per Child Borne.
All classes.....	78,432	7.4	28.0	14.0	4.1	3.5
White—native parentage.....	15,953	13.1	9.9	14.2	2.7	5.3
White—foreign parentage.....	61,816	5.7	32.7	14.1	4.4	3.2
First generation.....	37,788	5.3	37.9	14.2	4.7	3.0
Second generation....	24,028	6.3	24.6	14.1	3.9	3.6
Austrian.....	774	5.2	37.2	13.5	4.6	2.9
First generation.....	706	5.1	38.9	13.5	4.7	2.9
Second generation....	68	5.9	19.1	13.3	3.9	3.4
Bohemian.....	2,398	2.5	41.7	14.0	5.0	2.8
First generation.....	2,044	2.4	43.9	14.2	5.2	2.8
Second generation....	354	2.8	29.1	13.1	4.4	3.0
Canadian-English.....	1,349	8.7	18.5	14.0	3.5	4.0
First generation.....	1,052	8.8	19.2	14.1	3.5	4.0
Second generation....	297	8.4	16.1	13.5	3.3	4.1
Canadian-French.....	2,875	5.0	53.0	14.6	5.6	2.6
First generation.....	2,349	5.1	55.6	14.7	5.8	2.5
Second generation....	526	4.4	41.1	13.8	4.9	2.9
Danish.....	618	4.0	39.6	14.1	4.8	2.9
First generation.....	578	4.2	40.8	14.2	4.9	2.9
Second generation....	40	2.5	22.5	12.6	4.2	3.0
English.....	5,358	9.0	18.5	14.4	3.4	4.2
First generation.....	3,575	8.3	22.4	14.5	3.7	3.9
Second generation....	1,777	10.3	10.7	14.2	2.9	5.0
Finnish.....	312	4.8	47.4	13.8	5.3	2.6
First generation.....	312	4.8	47.4	13.8	5.3	2.6
Second generation....
French.....	329	8.8	32.5	14.3	4.3	3.3
First generation.....	95	8.4	35.8	14.3	4.5	3.2
Second generation....	234	9.0	31.2	14.3	4.2	3.4
German.....	23,003	4.7	30.4	14.2	4.3	3.3
First generation.....	10,203	3.9	39.2	14.3	4.9	2.9
Second generation....	12,800	5.4	23.4	14.1	3.9	3.6
Hungarian.....	1,011	7.2	34.9	13.6	4.5	3.0
First generation.....	996	7.3	35.2	13.6	4.6	3.0
Second generation....	15	*	*	*	*	*
Irish.....	9,975	7.8	35.0	14.1	4.4	3.2
First generation.....	4,492	7.4	40.8	14.2	4.8	3.0
Second generation....	5,483	8.1	30.2	14.1	4.2	3.4

Nationality as Determined by Nativity of Parents.	Women under 45 Years of Age Married 10 to 20 Years.					
	Total Number Tabulated.	Per Cent. Bearing no Chil- dren.	Per Cent. Bearing More than 5 Children.	Average Number of Years Married.	Average Number of Children.	Average Number of Years Married per Child Borne.
Italian.....	1,167	4.9	37.5	13.9	4.9	2.9
First generation.....	1,154	4.9	37.6	13.9	4.8	2.9
Second generation.....	13	*	*	*	*	*
Norwegian.....	3,185	4.4	38.2	13.9	4.7	2.9
First generation.....	2,299	5.0	39.7	14.0	4.8	2.9
Second generation.....	886	2.8	34.3	13.7	4.6	2.9
Polish.....	1,476	2.5	60.9	14.0	6.2	2.3
First generation.....	1,411	2.6	61.9	14.1	6.2	2.3
Second generation.....	65	1.5	38.5	13.0	5.1	2.6
Russian.....	656	2.6	50.5	14.1	5.4	2.6
First generation.....	643	2.5	51.3	14.1	5.5	2.6
Second generation.....	13	*	*	*	*	*
Scotch.....	1,209	9.5	20.2	14.2	3.6	4.0
First generation.....	899	8.9	23.2	14.3	3.8	3.8
Second generation.....	310	11.3	11.6	13.9	2.9	4.7
Swedish.....	3,373	4.7	27.9	13.9	4.2	3.2
First generation.....	3,108	4.6	28.7	13.6	4.3	3.2
Second generation.....	265	6.4	18.9	13.2	3.6	3.6
Swiss.....	858	5.8	31.6	14.2	4.4	3.2
First generation.....	440	6.6	35.7	14.1	4.7	3.0
Second generation.....	418	5.0	27.3	14.2	4.1	3.5
Welsh.....	764	5.2	20.6	14.0	3.8	3.7
First generation.....	393	5.9	26.0	14.3	4.1	3.5
Second generation.....	371	4.6	14.8	13.8	3.4	4.0
Other Foreign.....	1,132	7.2	31.9	14.2	4.3	3.3
First generation.....	1,039	7.0	32.1	14.3	4.3	3.3
Second generation.....	93	9.7	30.1	13.9	3.8	3.6
Negro.....	663	20.5	21.0	13.9	3.1	4.5

*Not computed, owing to small number involved.

The statistics compiled by this investigation give some indication of the effect of environment upon fecundity, since the data, as previously explained, are presented for five different areas or localities, comprising the state of Rhode Island, the cities of Cleveland and Minneapolis, and rural sections in Ohio and in Minnesota. The following table facilitates a comparison of fecundity in the several areas, by showing the percentage of women of the specified classes bearing no children, the percentage bearing more than 5 children, the average number of children per woman, and the average number of years married per child borne. The proportion of the women here considered bearing no children was largest in Rhode Island (11.3 per cent.) and smallest (3.0 per cent.) in rural Minnesota. The percentage having more than 5 children was practically the same in Rhode Island, Cleveland, and rural Ohio, being in each case about 26 per cent.; in Minneapolis it was 18.5 per cent.; in rural Minnesota, 40.7 per cent. In Rhode Island the average number of children borne by the women included in the tabulation was 3.8; in Cleveland and also in rural Ohio it was 4.0; in Minneapolis, 3.5; in rural Minnesota, 5.0. The average number of years married per child borne was 3.8 in Rhode Island, 3.5 in Cleveland, 3.6 in rural Ohio, 4.0 in Minneapolis, and 2.8 in rural Minnesota. It is perhaps somewhat surprising that in this comparison rural Minnesota should represent the extreme of large families while Minneapolis represents the extreme of small families. But doubtless these results are largely affected by the difference in the composition of the population as regards race or nativity. Probably a better index of the effect of locality is afforded by the percentages and rates given for the whites of native parentage as a separate class. For this class the average number of children is almost the same in Rhode Island (2.5) as it is in Cleveland (2.4) and in Minneapolis (2.4), and is exactly the same in rural Ohio as it is in rural Minnesota (3.4). In the rural sections of Ohio and Minnesota, however, the women of native parentage had had an average of one more child than the women of the same class in the cities of Cleveland and Minneapolis and the state of Rhode Island. The comparison is indicative of the effect of urban conditions

in restricting fecundity. The number of years married per child borne brings out a similar contrast. In the urban population as here represented the number of years of married life

Classes.	Women under 45 Years of Age Married 10 to 20 Years.				
	Total Number Tabulated.	Per Cent. Bearing no Children.	Per Cent. Bearing More than 5 Children.	Average Number of Children.	Average Number of Years Married per Child Borne.
All classes	78,432	7.4	28.0	4.1	3.5
Rhode Island	19,302	11.3	26.9	3.8	3.8
Cleveland	17,569	8.1	26.7	4.0	3.5
Minneapolis	9,116	8.5	18.5	3.5	4.0
Selected rural counties					
in Ohio	19,062	5.2	26.0	4.0	3.6
in Minnesota	13,383	3.0	40.7	5.0	2.8
White—native parentage	15,953	13.1	9.9	2.7	5.3
Rhode Island	6,133	17.5	9.2	2.5	5.9
Cleveland	3,104	15.2	6.3	2.4	5.9
Minneapolis	2,469	12.7	5.9	2.4	5.7
Selected rural counties					
in Ohio	2,808	5.7	16.8	3.4	4.1
in Minneapolis	1,439	5.1	14.9	3.4	4.2
White—foreign parentage	61,816	5.7	32.7	4.4	3.2
Rhode Island	12,809	8.0	35.4	4.5	3.2
Cleveland	14,230	6.3	31.4	4.3	3.2
Minneapolis	6,600	6.9	23.3	3.8	3.6
Selected rural counties					
in Ohio	16,235	5.1	27.6	4.5	3.5
in Minnesota	11,942	2.7	43.8	5.2	2.7
First generation	37,788	5.3	37.9	4.7	3.0
Rhode Island	9,603	7.2	37.8	4.7	3.1
Cleveland	10,132	5.5	37.6	4.7	3.0
Minneapolis	4,641	6.5	25.9	4.0	3.4
Selected rural counties					
in Ohio	6,293	4.6	34.2	4.6	3.1
in Minnesota	7,119	2.6	49.6	5.5	2.6
Second generation	24,028	6.3	24.6	3.9	3.6
Rhode Island	3,206	10.5	28.1	3.9	3.6
Cleveland	4,098	8.5	16.1	3.3	4.1
Minneapolis	1,959	7.9	17.2	3.4	4.0
Selected rural counties					
in Ohio	9,942	5.5	23.4	3.8	3.7
in Minnesota	4,823	2.8	35.2	4.7	2.9
Negro	663	20.5	21.0	3.1	4.5

per birth for the women of native parentage was almost 6; in the rural sections it was a little over 4.

The figures for the women of foreign parentage also show some noteworthy contrasts, the highest degree of fecundity for this class being found in rural Minnesota, the lowest in Minne-

apolis; but as between Cleveland, rural Ohio, and Rhode Island there are no very marked differences either in the average number of children per woman or the average number of years married per birth for this class. The composition of the foreign parentage class as regards race or country of origin differs greatly in these different localities and no doubt affects the results of the comparison.

In each of the localities covered by this tabulation the statistics indicate a greater fecundity for the women of foreign parentage than for those of native parentage.

The above comparisons suggest the necessity for a word of caution as regards accepting the totals obtained in this tabulation as typical of conditions in the United States as a whole. It is evident that conditions vary widely in different sections. In the totals included in this limited tabulation the urban element has a much greater weight than it would have in the total population of the United States. Of the total number of women for whom data are here presented 34 per cent. lived in the two cities of Cleveland and Minneapolis, and 24.6 per cent. in the state of Rhode Island which is largely urban, while only 41.4 per cent. lived in the rural counties of Ohio and Minnesota. Of the women of native parentage included, only about 27 per cent. lived in the rural counties of these two states. Of the total population of the United States, 53.7 per cent. is classed as rural in the census report of 1910; and of the native white population of native parentage 63.9 per cent. is rural. The state of Rhode Island comprises less than 1 per cent. of the total population of the United States but includes about one fourth of the total number of women here tabulated and about two fifths of the white women of native parentage. It would not, therefore, be safe to assert on the basis of the data here presented that white women of native parentage in the United States under 45 years of age and married 10 to 20 years have had on the average only 2.7 children, have borne children at the rate of one child every 5.3 years, and that 13.1 per cent. of them have had no children. Statistics covering the entire United States would not improbably indicate a greater degree of fecundity for the whites of native parentage than the figures here cited, which include no representation from the South

and only a relatively small representation of the agricultural section of the Middle West. Probably the figures given for Rhode Island are fairly typical of conditions in New England and through the manufacturing sections of the Middle Atlantic states; Cleveland and Minneapolis may be regarded as more or less typical of large cities with a large foreign element; and the rural counties included may be accepted as representing the agricultural Middle West. As regards the white women of native parentage, totals for the entire United States, if obtained, would probably give rates and percentages intermediate between those for the rural sections and those for Cleveland, Minneapolis, and Rhode Island.

Certain general conclusions, however, may be safely based upon this investigation; it shows that white women of native parentage are much less prolific than those of foreign parentage, and affords a statistical measure of the difference between these classes living side by side, in the communities covered by the tabulation; it shows that there is a wide range of variation as between different races or nationalities of foreign origin, and indicates their relative rank as regards fecundity; it shows also that the second generation of foreign origin is less prolific than the first generation although more prolific than the whites of native parentage; and finally it affords a measure of the extent to which urban conditions have restricted fecundity, an effect particularly striking in the case of the whites of native parentage.